

REMARKS

Reconsideration of the application, as amended, is respectfully requested.

Claims 9, 11, 16 and 18 have been amended to correct minor informalities.

New claims 22-25 are presented directed to use of supercritical gas and/or carbon dioxide, as supported, e.g., in paragraph [0037] of the published US application. New claims 26 and 31 are supported, e.g., in paragraph [0091]. New claims 27-28 are supported at paragraph [0024]; new claims 29-30 are supported at paragraph [0023]. New claims 32 and 33 are supported at page 11, lines 26-27.

The subject matter of claims 1 and 7 are presented in amended claims 1 and 7. Claim 1 starts with the mixing step whereas Claim 7 recites a process with more steps.

Margarine and many other fat-containing products typically include a liquid oil component and a solid fat component which imparts structure to the liquid component. Often such products are made by heating the entire product so that it is liquid and then processing it so that it becomes firmer. An unfortunate aspect to this method is that the entire product is heated, which is costly; it would be preferred if such a step could be avoided.

The present invention is directed to a process which, in addition to other advantages, permits omission of the step of heating the combined liquid and solid fat product. The process of the invention comprises preparing solid structuring agent particles by preparing a homogeneous mixture of structuring agent and liquefied gas or supercritical gas at a pressure of 5-40 MPa and expanding the mixture through an orifice. The

expansion takes place under such conditions that a spray jet is applied in which the structuring agent is solidified. The solidified agent comprises a microporous structure of submicron size particles. The dispersion is then formed by mixing oil, the solid structuring agent particles and the aqueous phase and/or the solid phase. The microporous structure may in the course of preparation of the dispersion, for instance through the force of a mixer, be broken into submicron particles (see paragraph [0024]). The resulting submicron particles will form the structuring network of the dispersion.

Other anticipated advantages of the process of the invention include greater flexibility in the selection of the hard structuring fat, reduction of the amount of saturated fat in the hard fat and an enhanced ability to incorporate heat sensitive ingredients into the product.

Brooker EP 1 238 589 ('589) is directed to a method of forming a food product which contains an emulsion. The method includes cooling an emulsion to effect a rapid conversion of the liquid product to a solid.

The Office points to no teaching in '589 of mixing together oil, solid structuring agent particles and aqueous phase wherein the solid structuring agent particles have a microporous structure of submicron size particles and wherein the solid structuring agent particles were made using a process by preparing a homogeneous mixture of structuring agent and liquefied gas or supercritical gas at a pressure of 5-40 MPa and expanding the mixture through an orifice. Indeed, in '589, the product which is brought to the cooling device is "in a liquid state." (paragraph [0027], 2nd line). The Office points to no teaching of mixing together oil, the solid structuring agent particles and the aqueous phase and/or the solid phase to form the dispersion. Thus, '589 does not render obvious claims 1 and 7.

Even less does '589 teach the subject of various dependent claims. For instance, claims 22-25 recite use of a supercritical gas. While '589 mentions use of liquid gas, the Office points to no teaching in '589 of the use of supercritical gas.

The Office asserts that claim 1, prior to the present amendment, merely called for forming a dispersion by mixing the claim 1 ingredients. In this respect, the Office points to claims 1-2 and page 5, lines 2-12 of '589. Claim 1 of '589 recites in part "contacting the product in liquid form with a cryogen." Similarly, page 5, line 3 of '589 mentions "bringing the product in a liquid state to a cooling device." In contrast, even prior to amendment, claim 1 of the present application recited mixing oil, solid structuring agent particles and the aqueous phase. And now, claims 1 and 7 have been amended to define the invention even more particularly. Therefore, claim 1 does not recite the '589 invention.

In the Office action dated September 23, 2009, the Office indicated that the claims differ from '589 in the recitation that the formed emulsion has a microporous structure. Applicants do not assert that their emulsions have a microporous structure. Indeed, in paragraph [0024] of the published application, applicants indicate that the microporous structure may in the course of preparation of the dispersion be broken into submicron particles which will form the structuring network of the dispersion.

Applicants would like to point out that there appear to be typographical errors in applicants' Table 2, wherein decimal points have been omitted from the pressures stated for Examples 1, A and B, resulting in stated pressures 10x greater than they should be. This is apparent from paragraphs [0091] and [0094].

In view of the foregoing, it is respectfully requested that the application, as amended, be allowed.

Respectfully submitted,



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